

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A vapor phase growth apparatus comprising at least a sealable reactor, a wafer containing member installed within the reactor and having a wafer mounting portion on a surface thereof for holding a wafer, a gas supply member for supplying raw material gas towards the wafer, a heating member for heating the wafer, and a heat uniformizing member for holding the wafer containing member and uniformizing heat from the heating member, the heating uniformizing member having approximately the same size as the wafer containing member, and

wherein raw material gas is supplied into the reactor in a high temperature environment while heating the wafer by using the heating member via the heat uniformizing member and the wafer containing member, to form a film grown on a surface of the wafer,

wherein a recess portion depressed in a dome shape is formed at a back side of the wafer containing member, and the recess portion is formed so that an apex of the dome shape is arranged on a straight line connecting a center of the wafer containing member with a center of the heating uniformizing member,

wherein the wafer containing member comprises a material having a heat conductivity of 50W/mK or larger but not exceeding 500W/mK, and

wherein, when a height and a diameter of the recess portion provided in the wafer containing member are represented by H and D, respectively, the height H is within a range from 0.02mm to 3.5mm and a ratio of the height and the diameter H/D is between 0.01 and 2.10%.

2. (Cancelled)

3. (Currently Amended) The vapor phase growth apparatus according to claim 1 ~~[[2]]~~, wherein the ratio of the height and the diameter H/D is between 0.50 and 1.50%.

4. (Currently Amended) The vapor phase growth apparatus according to any one of claims 1 and 3 ~~any one of claims 2 and 3~~, wherein the height H of the recess portion provided in the wafer containing member is between 0.02 and 3.00 mm.

5. (New) The vapor phase growth apparatus of claim 1, wherein the temperature difference ΔT between a center portion of the wafer containing member and an edge portion of the wafer containing member is 15°C or less.

6. (New) The vapor phase growth apparatus of claim 1, wherein the temperature difference ΔT between a center portion of the wafer containing member and an edge portion of the wafer containing member is 5°C or less.

7. (New) The vapor phase growth apparatus of claim 1, wherein variation of the in-plane temperature distribution on the surface of the wafer is 1°C or less.